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EXAMINER	
ELALLAM, AHMED	

ART UNIT	PAPER NUMBER
2668	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/625,586	STERNE ET AL.	
	Examiner	Art Unit	
	AHMED ELALLAM	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is responsive to Amendment filed on 11/25/2005. The Amendment has been entered.

Claim Rejections - 35 USC § 102

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 6, 7, 17, 22, 23, 25 and 34, are rejected under 35 U.S.C. 102(e) as being anticipated by Puntambekar et al (USPN 6,097,726), hereafter referred to as Puntambekar.

Referring to claims 1, 2, 6, 7, 17, 22, 23, 25 and 34 Puntambekar discloses a multi-protocol switch (an ATM and IP switch (see figure 4), comprising a plurality of egress line cards, wherein each of the plurality of egress line cards supports at least one egress connection (the switch comprises a plurality of egress line cards (see figure 4 and columns 5 and 6)), a switching fabric operably coupled to the plurality of egress line cards; and an ingress line card operably coupled to the switching fabric (the cards are part of a network switch (see figure 4)), wherein the ingress line card receives cells over a plurality of ingress connections (each switch receives ATM cells (see figure 4 and column 9 line 59 through column 10 line 26), wherein each cell includes an ingress connection identifier (each cell includes a VPI (see figure 4 and column 9 line 59

through column 10 line 26), wherein the ingress line card determines a cell protocol for each cell based on the ingress connection identifier corresponding to the cell (the ingress card determines if it is to act as a leaf switch or a root switch depending on the VPI (see figure 4 and column 9 line 59 through column 10 line 26)), wherein when the cell protocol is a first protocol, the ingress line card determines a forwarding decision based on the input connection identifier for the cell (if the switch is to act as a leaf switch it forwards the cell by changing the VPI (see figure 4 and column 9 line 59 through column 10 line 26)), wherein when the cell protocol is a second protocol, the ingress line card determines the forwarding decision based on a destination address for a packet to which the cell corresponds (if the switch is to act as a root switch it collects the corresponding cells that make up a packet and forwards the packet according to the destination address of the packet (see figure 4 and column 9 line 59 through column 10 line 26), wherein the ingress line card forwards at least a portion of the cell over the switching fabric to at least one of the plurality of egress line cards based on the forwarding decision (the cells and/or frames are forwarded based on the protocol determination to be output from the switching node to either the next leaf switch or the destination node (see figure 4 and column 9 line 59 through column 10 line 26));

wherein the ingress line card includes a lookup table (the ingress card uses a VC data structure array to make the forwarding decisions (see column 5 lines 40-67), wherein the lookup table stores protocol information for each ingress connection of the plurality of ingress connections (the VC data structure includes VC entries which are related to particular protocols (see column 6), wherein the ingress line card references

the lookup table to determine the cell protocol for each cell received (the ingress card uses the VC entries to determine if the switch is a root of leaf switch (see figure 4 and column 9 line 59 trough column 10 line 26);

a plurality of transport interfaces between the ingress line card and the plurality of egress line cards, wherein each transport interface of he plurality of transport interfaces provides a route from the ingress line card across the switching fabric to a destination egress line card of the plurality of egress line cards, wherein determining a forwarding decision based on the destination address include determining a selected transport interface of the plurality of transport interfaces (inherently, the ingress and egress cards of the switch have related transport interfaces which are used when the cells are switched between them (see figure 4);

a transport interface group (TIG) between the ingress line card and a first egress line card of the plurality of egress line cards, wherein the TIG includes a plurality of transport interfaces, wherein each transport interface of the plurality of transport interfaces is characterized by a plurality of transport parameters, herein determining a forwarding decision based on the destination address includes selecting a transport interface of the plurality of transport interfaces based on a class of service associated with the cell (inherently, there are transport interfaces between the plurality of cards of the switches and when the packet is reassembled and forwarded to the destination, a transport interface is used to do so. Note the switch could not work without transport interfaces (see figure 4); forwarding the cell across a switching fabric to at least one

selected egress line card of a plurality of egress line cards (the cards are in a switch wherein ingress cards are switched to egress cards (see figure 4));

when the cell protocol is the first protocol, forwarding the cell across the switching fabric further comprises selecting a selected virtual connection of a plurality of virtual connections across the switching fabric to the selected egress line card and forwarding the cell using the selected virtual connection (when it is determined that a switch is a leaf switch it forwards the cells on according to the VPI (see figure 4 and column 9 line 59 through column 10 line 26));

when the cell protocol is the second protocol, forwarding the cell across the switching fabric further comprises selecting a selected transport interface of a interfaces across the switching fabric to the selected egress line card and forwarding the cell using the selected transport interface (when the switch is a root switch the reassembled packet is inherently send over a transport interface to an egress card so that it can be forwarded to its destination (see figure 4 and column 9 line 59 through column 10 line 26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3-5 are rejected under 35 U.S.C. 1O3(a) as being unpatentable over Puntambekar in view of Honda et al. (USPN 6,147,999), hereafter referred to as Honda.

Referring to claim 3, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses that when the cell protocol is the second protocol, the ingress switch at least partially assembles the packet to which the cell corresponds to produce a reassembled packet (the ingress card reassembles the cells that make up the packet back into a complete packet (see column 9 and 10)) and forwarding the packet through the switch to the egress card according to the destination address of the packet (see columns 9 and 10)). Puntambekar does not disclose that the ingress line card segments the reassembled packet to produce segmented cells. However, Honda discloses a teaching of a prior art method wherein a packet that has been transported by a plurality of cells is reassembled and then segmented again in order to be forwarded on (see column 1 lines 35-45)). It would have been obvious to a person of ordinary skill in the art at the time of the invention to perform such operations in the Puntambekar system because doing so would improve bandwidth efficiency. Namely, since packets vary in length, very long one may starve other smaller packets of the available bandwidth, therefore breaking the packets into smaller fixed sized segments (such as ATM cells) will help improve the bandwidth efficiency.

Referring to claim 4, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses that when an egress line card of the plurality of egress line cards receives segmented cells, the egress line card reassembles the segmented cells to produce an egress packet, wherein the egress line card forwards the

egress packet over at least one selected egress connection based on the destination address for the packet from which the segmented cells were derived the packet cells are reassembled into a complete packet and forwarded on based on the destination address of the packet (see column 10)).

Referring to claim 5, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses forwarding the cells over the switching fabric further comprises forwarding control information with the cells, wherein the control information is used in the determination of the at least one selected egress connection (inherently, the VPI, VCI values are transmitted with the cells, they are transported through the switch and used to route the cells to the proper egress port to be forwarded to, thus these values are used for controlling where the cells travel (see figure 4 and columns 9 and 10)). Note, as in claim 3, Puntambekar does not disclose that he cells are cells from a segmented packet, thus see claim 3 for the combination of Puntambekar with Honda.

3. Claims 8-12, 18, 19, 24, 26 and 31-33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Puntambekar in view of Zheng et al. (USPN 6,611,522), hereafter referred to as Zheng.

Referring to claims 8, 12, 24 and 26, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses that cells of the first protocol are forwarded over the switching fabric to at least one of the plurality of egress line cards using virtual connections within the multi-protocol switch (the cells are forwarded

through the switch based on the VPI values (see column 9)). Puntambekar does not disclose that each of the virtual connections is characterized by a plurality of connection parameters, wherein the plurality of connection parameters for a selected virtual connection characterize a class of service provided across the virtual connection or that the transport interfaces are grouped according to the class of service. However, Zheng discloses a system for transporting ATM traffic wherein the ATM connections are given Quality-of-Service (Q0S) requirements that have corresponding parameters (see column 1 lines 33-67)). It would have been obvious to one skilled in the art at the time of the invention to implement the QOS element taught by Zheng in the Puntambekar system because as Zheng point out in column 1 lines 40-49, different types of network traffic require different transmission requirements such as avoiding echoes in voice connections. Thus implementing QOS in Puntambekar would make Puntambekar a more versatile and reliable system.

Referring to claims 9 and 33, Puntambekar discloses the system discussed above. Puntambekar does not disclose that the ingress line card includes, supports and transports packet-over-SONET (POS) frames. However, it would have been obvious to one skilled in the art at the time of the invention to implement POS in the Puntambekar system because doing so would make Puntambekar more versatile by allowing the system to support such a protocol. Also implement an established protocol will reduce the development costs related to having to design an entirely new protocol to use in the Puntambekar system. Note the base claims of claim Page 9 33 (claims 3 1 and 32) are discussed below.

Referring to claims 10 and 11 and 18, Puntambekar discloses the system discussed above. Puntambekar does not disclose that the first protocol is asynchronous transfer mode (ATM) and the second protocol is Internet Protocol (IP). However, Zheng discloses a system wherein both ATM and IP packets are processed through a switch (see column 2). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in Puntambekar because doing so would make Puntambekar more flexible in terms of the services it provides.

Referring to claim 19, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses that determining the cell protocol further comprises referencing a lookup table using the ingress connection identifier to determine the cell protocol for the cell (a VC entry array is accessed using the VC value of the received cell (see column 9)), wherein the lookup table stores a protocol indication for a plurality of ingress connection identifiers, wherein the ingress connection identifier for the cell is included in the plurality of ingress connection identifiers (the VC Entry array comprises a plurality of VCI/VPI values and tells the switch whether it is a leaf or root switch according to that value (see columns 9 and 10)).

Referring to claims 31 and 32, the claim limitations correspond to similar limitations as that of claim 1 and therefore these limitations are rejected for the same reasons as claim 1 (see the 35 USC 102(e) rejection on claim 1, as discussed above). Puntambekar does not disclose that the transport interface or the TIG is grouped according to a class of service. However, Zheng discloses a system for transporting ATM traffic wherein the ATM connections are given Quality- Of-Service (QOS)

requirements that have corresponding parameters (see column 1 lines 33-67)). It would have been obvious to one skilled in the art at the time of the invention to implement the QOS element taught by Zheng in the Puntambekar system because as Zheng point out in column 1, lines 40-49, different types of network traffic require different transmission requirements such as avoiding echoes in voice connections. Thus implementing QOS in Puntambekar would make Puntambekar a more versatile and reliable system.

4. Claims 13-16 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puntambekar in view of Smith et al, (USPN 6,128,649), hereafter referred to as Smith.

Referring to claims 13-16 and 27, Puntambekar discloses the system discussed above. Puntambekar does not disclose the switch operates using a multicasting protocol. However, Smith discloses a system wherein IP or ATM multicasting are used for many advantageous reasons. As Smith points out, in column 25 lines 17-67, IP and ATM multicasting provide good conferencing configurations, reduced processing and resource limitations and avoid certain types of congestion. For these reasons it would have been obvious to one skilled in the art at the time of the invention to implement a multicasting feature into Puntambekar to take advantage of the various feature that multicasting provides.

5. Claims 20, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puntambekar in view of Honda and further in view of Zheng.

Referring to claim 20, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses routing the cell through the multi-protocol switch based on the destination address further comprises storing the cell with additional cells included in the packet to which the cell corresponds to produce a assembled packet (the cells of the packet are collected to complete the packet (see column 10)); determining the destination address for the packet from at least one cell included in the packet (the destination address of the reassembled packet is inspected (see column 10)), and forwarding the cells based on the destination address (the combined cells that are now a packet are forwarded on according to the destination address, (see column 10)). Puntambekar does not disclose segmenting the reassembled packet to produce segmentation cells and forwarding segmentation cells. However, Honda discloses a teaching of a prior art method wherein a packet that has been transported by a plurality of cells is reassembled and then segmented again in order to be forwarded on (see column 1 lines 35-45)). It would have been obvious to one skilled in the art at the time of the invention to perform such operations in the Puntambekar system because doing so would improve bandwidth efficiency. Namely, since packets vary in length, very long one may starve other smaller packets of the available bandwidth, therefore breaking the packets into smaller fixed sized segments (such as ATM cells) will help improve the bandwidth efficiency.

Referring to claim 28, Puntambekar discloses a multi-protocol switch that supports at least asynchronous transfer mode (ATM) and Internet protocol (IP) (a multi-protocol switch that supports both IP and ATM (see figure 4)), comprising a plurality of

egress line cards, wherein each of the plurality of egress line cards supports at least one egress connection (a plurality of ingress cards that support respective connections (operably coupled to the plurality of egress line cards and an ingress line card operably coupled to the switching fabric (the cards are within a switch (see figure 4)), wherein the ingress line card receives cells over a plurality of ingress connections, wherein each cell includes an ingress connection identifier (the ingress cards receive cells over a plurality of virtual circuits and the cell comprise VCI and VPI values (see figure 4)), the ingress line card forwards the cell across the switching fabric to at least one egress line card of the egress line cards based on the ingress connection identifier for the cell (if the switch is a leaf switch it updates the VPI value of the cell and forwards it on through the switch (see figure 4 and column 9)), the ingress line card at least partially reassembles a packet to which the cell corresponds to produce a reassembled packet (if the switch is a root switch, it reassembles the cell into a packet (see figure 4 and columns 9 and 10)), determines a destination address to which the packet corresponds (the destination address of the complete packet is determined (see column 10)) and forwards the packet across the switching fabric to at least one egress line card of the plurality of egress line cards based on the destination address (the reassembled packet is sent through the switch to be forwarded on to the destination according to the destination address (see figure 4 and column 10). Puntambekar does not disclose that the ingress line card segments the reassembled packet to produce segmented cells. However, Honda discloses a teaching of a prior art method wherein a packet that has been transported by a plurality of cells is reassembled and then segmented again in order to be

forwarded on (see column 1 lines 35-45)). It would have been obvious to one skilled in the art at t he time of the invention to perform such operations in the Puntambekar system because doing so would improve bandwidth efficiency. Namely, since packets vary in length, very long one may starve other smaller packets of the available bandwidth, therefore breaking the packets into smaller fixed sized segments (such as ATM cells) will help improve the bandwidth efficiency.

Furthermore, Puntambekar does not disclose that the first protocol is asynchronous transfer mode (ATM) and the second protocol is Internet Protocol (IP). However, Zheng discloses a system wherein both ATM and IP packets are processed through a switch (see column 2)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in Puntambekar because doing so would make Puntambekar more flexible in terms of the services it provides.

Referring to claim 29, Puntambekar discloses the system discussed above. Furthermore, Puntambekar discloses that frame is transported across a transport interface (inherently, since the Puntambekar does not disclose that the transport interface is selected according a class of service. However, Zheng discloses a system for transporting ATM traffic wherein the ATM connections are given Quality-of-Service (QOS) requirements that have corresponding parameters (see column 1 lines 33-67)). It would have been obvious to one skilled in the art at the time of the invention to implement the QOS element taught by Zheng in the Puntambekar system because as Zheng point out in column 1 lines 40-49, different types of network traffic require different transmission requirements such as avoiding echoes in voice connections. Thus

implementing QOS in Puntambekar would make Puntambekar a more versatile and reliable system.

6. Claims 21 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puntambekar in view of Honda and Zheng and further in view of Yang et al. (USPN 5,917,819), hereafter referred to as Yang.

Referring to claims 21 and 30, Puntambekar discloses the system discussed above. Puntambekar does not disclose determining an egress index for the reassembled packet based on the destination address; and using the egress index to forward at least a portion of the reassembled packet to at least one egress connection. However, Yang discloses of an ATM system wherein an output index is determined that is used to based on a destination address of where the cell is to be forwarded on to (see column 5 lines 57-67)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into Puntambekar because doing so would allow the cell to be properly output from the switch to the correct egress port, thereby making Puntambekar's system more functional and reliable.

Response to Arguments

7. Applicant's arguments filed 11/25/2005 have been fully considered but they are not persuasive.

Applicants traversed Examiners assertion that "the functions of the claimed "structure" are the same of the multi-protocol switching structure of that of

Puntambekar", stating in part "*Even if the prior art device performs all the functions recited in the claim, the prior art cannot anticipate the claim if there is any structural difference. It should be noted, however, that means plus function limitations are met by structures which are equivalent to the corresponding structures recited in the specification. In re Ruskin, 347 F.2d 843,146 USPQ 211 (CCPA 1965) as implicitly modified by In re Donaldson, 16 F.3d 1189,29 USPQ2d 1845 (Fed. Cir. 1994)".*

Examiner respectfully disagrees, because it is not clear if 112 6th paragraph is invoked or not by Applicants, and the claims in question have the word "comprising" in the preamble. Therefore the corresponding claimed "structure" does not necessarily correspond to the "structure" alleged by Applicants. Therefore the claimed elements are met by the structure of Puntambekar, as indicated in the rejection above.

As to the argument with regard to "leaf" switch and "root" switch, Examiner notes that a first distinction is to be made, the switch can be root or leaf switch depending on the type of traffic received, see column 9, line 38-column 10, line 11. Therefore, the claimed features in question is are met since the ingress card (within the switch) determines if it is to act as a leaf switch or a root switch depending on the VPI, and that reads on the cell protocol is a first protocol, and if the switch is to act as a leaf switch it forwards the cell by changing the VPI reads on the claimed cell protocol is a second protocol, if the switch is to act as a root switch it collects the corresponding cells that make up a packet and forwards the packet according to the destination address of the packet wherein the cells and/or frames are forwarded based on the protocol

determination to be output from the switching node to either the **next** leaf switch or the destination node (root switch).

As to claims 3-5, 8-12, 13-16, 18, 19, 24, 26, 27, 31-33, Applicants argue that these claims depend from claims that were rejected based at least in part on the teaching of Puntambekar, thus they are allowable. Examiner respectfully disagree, as noted above Puntambekar is still believed to be a proper anticipating reference for the parent claims.

As to claims 20, 28 and 29 Examiner believes that a prima facie of obviousness is being established contrary to Applicants' assertion, because as shown above the claimed subject matter is shown to be unpatentable over Puntambekar, Honda et al and Zheng et al.

As to claim 21 and 30, Applicants argue: *" the cited portion of Yang et al. states, "...the appropriate VPI/VCI destination address is retrieved from the output translation table 16 as illustrated in step 86 using the local CID as an index prior to transmission of the cell as illustrated in step 88." Thus, rather than teaching determining an egress index for the reassembled packet based on the destination address," Yang et al. appear to teach away from such feature by appearing to teach using the local CID as an index to retrieve the appropriate VPI/VCI destination address."* Emphasis added.

Examiner respectfully disagrees, claims 21 and 30 requires "determining an egress index for the reassembled packet based on the destination address; and using the egress index to forward at least a portion of the reassembled packet to at least one egress connection".

Examiner notes that the use of the local CID as an index read on the determination step and the use of such index in mapping the destination address (VPI/VCI) to retrieve the appropriate VPI/VCI destination address as the claimed using the egress index to forward at least a portion of the reassembled packet to at least one egress connection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Galand et al, US (5,568,477); Galand et al, US (6,317,433); and Buckland et al, US (6,944,153).

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
2/21/2006

JOHN PEZZLO
PRIMARY EXAMINER